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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/693,897

10/28/2003

Su Tao

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23364 7590 03/02/2005

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EXAMINER

PRENTY, MARK V

ART UNIT

PAPER NUMBER

2822

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/693,897	<b>Applicant(s)</b> TAO, SU	
	<b>Examiner</b> MARK V. PRENTY	<b>Art Unit</b> 2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 17 and 18 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-13 is/are allowed.
- 6) ☒ Claim(s) 14 and 16 is/are rejected.
- 7) ☒ Claim(s) 1-5, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

This Office Action is in response to the response filed on February 3, 2005.

Applicant's election without traverse of Group I, claims 1-16, is acknowledged.

Claims 17 and 18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention.

The specification is objected to because "recession(s)" (two occurrences in paragraph [0011], three in paragraph [0023], three in paragraph [0025], three in paragraph [0026], and two in paragraph [0027]) should read, "recess(es)." Correction is required.

Independent claim 1 is objected to because "recessions" (two occurrences) should read, "recesses." Correction is required. Claims 2-5 depend on independent claim 1 and are thus similarly objected to.

Independent claim 14 is objected to because "recessions" (two occurrences) should read, "recesses." Correction is required. Claim 15 depends on independent claim 14 and is thus similarly objected to.

Claims 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Larson et al. (United States Patent 3,311,791 – hereafter Larson).

With respect to independent claim 14, Larson discloses a substrate unit 14 adapted to a semiconductor package (see the entire patent, including the Fig. 2 disclosure), comprising: an upper surface; a lower surface opposed to the upper surface; a side surface connecting the upper surface and the lower surface; a plurality of circuit traces 12 formed on the upper surface; a plurality of recesses 15a formed on

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the side surface and electrically connected to the circuit traces; and a metal layer 15 formed on one of the recesses.

Claim 14 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Larson.

With respect to independent claim 16, Larson discloses a substrate unit 14 adapted to a semiconductor package (see the entire patent, including the Fig. 2 disclosure), comprising: an upper surface; a lower surface opposed to the upper surface; a side surface connecting the upper surface and the lower surface; a plurality of circuit traces 12 formed on the upper surface; and a plurality of contacts 15 formed on the side surface and electrically connected to the circuit traces.

Claim 16 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Larson.

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable over the prior art of record if rewritten in independent form including all of the limitations of the base claim and any intervening claims (and including the required correction noted above with respect to independent claim 14).

Claims 6-13 are allowable over the prior art of record.

The prior art of record does not disclose or suggest the allowable semiconductor package taken as a whole, including the side surface contacts.

United States Patent Application Publication 2004/0094832 is related to this application.

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Registered practitioners can telephone the examiner at (571) 272-1843. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the Application/Control (Serial) Number. Technology Center 2800's general telephone number is (571) 272-2800.

*Mark Prenty*  
Mark V. Prenty  
Primary Examiner